Abstract of the Disclosure

A wavelength stabilizing filter has a wavelength transmission characteristic curve that has its peak in

5   a wavelength located between a first continuous set band and a second continuous set band longer in wavelength than the first set band, and that linearly drops from the peak toward the shorter wavelength side than the first set band and also toward the longer wavelength side

10   longer than the second set band. A control unit generates a control signal needed to enable an optical tunable filter to extract signal light with a predetermined wavelength from an inputted WDM signal, based on light transmitted through the wavelength stabilizing filter.